

Germinating Plants Using Lysol

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How Do Plants Grow? What is Photosynthesis?

Plants are a part of nature and are essential to our environment, so how do plants grow? Plants rely on resources to grow, such as water, soil and sunlight. Plants first start off as seeds and by using these resources, these seeds soon begin to sprout into a plant. These nutrients are necessary for a plant's growth. When watering a plant, the plant will transfer the water from the roots and up to the leaves and stem for moisture and growth. Besides these nutrients, it is also important to maintain a plant in an environment where it will thrive, therefore temperature is very important. Why are plants so important? Plants go through a process known as "photosynthesis" which is the process in which it requires water, sunlight, and carbon dioxide to produce oxygen and energy in the form of sugar.

Introducing the Project:

In this project, I decided to see how plants will grow when given a different solution instead of water. Of course, when using a different solution, I diluted the solution with water so it does not kill the plant. In this case, I used radish seeds to germinate and transfer over to soil to see the growth between the two. The only difference would be that one of the trays would be germinated with a Lysol-water mixture.

Materials Needed:

- Two petri dishes
- Two paper towels
- 1:3 ratio of Water and Lysol
- Two pots or cups
 - 12 oz. Soil
 - Water
- Two spray bottles

Directions:

1. On each of the paper towels, put ten seeds into each of the paper towels and wrap them
2. Place the two paper towels into each petri dish and spray one with water and the other one with the 1:3 ratio of Lysol-water solution
3. Once the seeds start sprouting, put about 12 oz of soil or enough soil for the seeds in the two cups or pots. From here you can transfer the sprouted seeds into the cups/pots
4. Water the designated seeds with water and the other with its designated Lysol-water solution
5. Record your measurements of each of the plants' growth

Hypothesis and Manipulation

When spraying the seeds with the Lysol-water solution, the plant's growth will be affected. By doing so, the plant that is affected by the Lysol-water solution will either have an increase or a decrease in growth compared to the one that is watered with just water.

In this project, the independent variable will be the different kinds of solutions used to water the plants. The factors that will remain constant will be the amount of soil used, amount of sunlight, and amount of solution for each plant. The plants will be sitting on a window sill to receive the sunlight. I chose to manipulate the solutions because I wanted to experiment whether Lysol in a water solution would affect a plant's growth or change the plant.

Measurements:

Using the spray bottles to water the seeds in the petri dishes, I used about ten sprays for each. When it came to transferring the plants to bigger cup or pot, I measured about 12 oz of soil for each cup. When watering the plants, I made sure to water about at least an inch of solution for each plant. Because the plants were sitting on the window sill, the amount of sunlight each plant got would be the same.

Results:

After speculating the plants' growth, the plant that was watered with the Lysol-water solution did not grow as much as the one that was watered with

Months:	Growth of Plant with Water Solution:	Growth of Plant with Lysol-water Solution:
October:	2.50 Inches	1.50 Inches
November:	5.00 Inches	2.75 Inches
December:	7.25 Inches	5 Inches

Summary and Importance

Overall, the project was conducted to determine whether plants could thrive on other liquid solutions. When conducting this project, it is important to note that the solution that plants use to grow will affect their growth greatly. With radishes, the plants that were watered with the Lysol-water solution did not thrive because the solution affected their growth and the growth depleted.

Works Cited:

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